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We claim:

1. A polypeptide encoding a non-constitutively active nuclear orphan receptor (non-CAR) comprising a mutation in a native CAR sequence, wherein the mutation renders the polypeptide less
5 constitutively active.
2. The polypeptide of claim 1, wherein the mutation corresponds to murine CAR (mCAR) position Thr176, mCAR position Leu352, mCAR position Leu353, human CAR (hCAR) position Leu342, and/or hCAR position Leu343.
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3. The polypeptide of claim 1, wherein the mutation corresponds to mCAR position Thr176.
4. The polypeptide of claim 1, wherein the mutation corresponds to mCAR position Thr176 and mCAR position Leu352.
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5. The polypeptide of claim 3, wherein the mutation is a Thr176 to Val176 (T176V) mutation or a Thr176 to Leu176 (T176L) mutation.
6. The polypeptide of claim 2, wherein the mutation corresponds to hCAR position Leu342
20 and hCAR position Leu343.
7. The polypeptide of claim 2, wherein the mutation is a Leu352 to Ala352 (L352A) mutation.
- 25 8. The polypeptide of claim 2, wherein the mutation is a Leu342 to Ala342 (L342A) mutation or a Leu343 to Ala343 (L343A) mutation.
9. The polypeptide of claim 1, wherein the polypeptide further comprises one or more conservative amino acid substitutions which do not substantially decrease the non-constitutive
30 activity of the polypeptide.
10. The polypeptide of claim 1, wherein the polypeptide confers xenochemical metabolizing activity to a xenochemical-metabolizing enzyme, and wherein the xenochemical metabolizing activity can be detected *in vitro*.
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11. The polypeptide of claim 10, wherein expression of the xenochemical-metabolizing enzyme is regulated by an enhancer element.

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12. The polypeptide of claim 10, wherein the xenochemical-metabolizing enzyme metabolizes a xenochemical selected from the group consisting of phenobarbital and 1,4-bis [2-(3,5-dichloropyridyloxy)] benzene (TCPOBOP).

5 13. The polypeptide of claim 1, wherein the polypeptide confers steroid metabolizing activity to a steroid-metabolizing enzyme, and wherein the steroid metabolizing activity can be detected *in vitro*.

10 14. The polypeptide of claim 13, wherein the steroid-metabolizing enzyme metabolizes a steroid selected from the group consisting of estrogen and estradiol.

15 15. The polypeptide of claim 1, wherein the polypeptide is purified.

16. A kit comprising the polypeptide of claim 1, and a steroid and/or a xenochemical.

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17. A composition comprising the polypeptide of claim 1.

18. An isolated nucleic acid encoding the polypeptide of claim 1.

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19. The isolated nucleic acid of claim 18 operably linked to a promoter.

20. A vector comprising the isolated nucleic acid of claim 18.

21. A recombinant nucleic acid comprising the isolated nucleic acid of claim 18.

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22. A cell transformed with the recombinant nucleic acid of claim 21.

23. The cell of claim 22, wherein the cell comprises xenochemical metabolizing activity and/or steroid metabolizing activity.

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24. A transgenic mammal comprising the recombinant nucleic acid of claim 21.

25. A specific-binding agent which specifically binds to the polypeptide of claim 1, but does not substantially bind to a nuclear orphan receptor CAR.

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26. A composition comprising the isolated nucleic acid of claim 18.

27. A method of generating a substantially non-constitutively active CAR, comprising:

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introducing one or more mutations into a native CAR sequence, wherein the mutation renders the polypeptide substantially non-constitutively active, and wherein the mutation does not significantly interfere with the ability of the native CAR to be induced by a CAR-responsive xenochemical or a CAR-responsive steroid.

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28. The method of claim 27, wherein the mutation corresponds to mCAR position Thr176, mCAR position Leu352, mCAR position Leu353, hCAR position Leu342, and/or hCAR position Leu343.

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29. A method of screening a test agent to identify agents which activate a xenochemical and/or steroid metabolizing enzyme, comprising:

contacting a cell with the test agent, wherein the cell comprises the polypeptide of claim 1 and a nucleic acid sequence operably linked to an enhancer element; and

detecting the presence or absence of xenochemical and/or steroid metabolizing activity.

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30. The method of claim 29, wherein the nucleic acid sequence operably linked to an enhancer element comprises a reporter gene, and wherein detecting xenochemical and/or steroid metabolizing activity comprises detecting the presence or absence of a product encoded by the reporter gene, and wherein presence of the product indicates that the test agent can activate a xenochemical and/or steroid metabolizing enzyme.

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31. The method of claim 29, wherein the enhancer element is a xenochemical or steroid metabolizing enzyme enhancer element.

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32. The method of claim 29, wherein the cell is a transformed cell.

33. A method of screening a sample suspected of containing a CAR-responsive steroid and/or xenochemical, comprising:

contacting a cell with the sample, wherein the cell comprises the polypeptide of claim 1 and a nucleic acid sequence operably linked to an enhancer element; and

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detecting the presence or absence of steroid and/or xenochemical metabolizing activity.

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34. The method of claim 33, wherein the nucleic acid sequence operably linked to an enhancer element comprises a reporter gene, and wherein detecting steroid and/or xenochemical metabolizing activity comprises detecting the presence or absence of a product encoded by the reporter gene, and wherein presence of the product indicates that the sample includes a CAR-responsive steroid and/or xenochemical.

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35. The method of claim 33, wherein the enhancer element is a xenochemical or steroid metabolizing enzyme enhancer element.